Since the substrate 146 and the coolant 52 are optically transparent at the pump radiation wavelengths, the pump radiation 36 is transported through them and through the optical coating 21 into the laser gain medium 126 of the composite gain media 112a-112g. The fraction of the pump radiation 36 not absorbed on the first pass through the laser gain medium 126 is reflected from the coating 41 and makes a second pass through the laser gain medium, this time in a generally reverse direction. Absorption of pump radiation 36 pumps the laser gain medium 126 to a laser transition. A key benefit provided by the second preferred embodiment of the invention is that the optical pump source 68 does not compete for space with laser beam 64 and 64'.

IN THE CLAIMS

Please amend the claims in accordance with the following rewritten claims in clean form. Applicant includes herewith an Attachment for Claim Amendments showing a marked up version of each amended claim.

1. (Amended) A solid-state laser module for amplification of laser radiation comprising:

a substrate having a front surface and a back surface, said front surface of said substrate having a plurality of channels formed therein;

a plurality of laser gain medium elements, each of said laser gain medium elements having a front surface, a back surface and a peripheral edge surface, said back surfaces of said laser gain medium elements being in contact with said front surface of said substrate;